Attachment A

Mitigation Monitoring Program to Ensure Fulfillment of All Environmental and Related Commitments in the Final EIS, the Record of Decision, and the Section 106 Programmatic Agreement

Honolulu High-Capacity Transit Corridor Project

January 2011

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Mitigation Monitoring Program for the Honolulu High-Capacity Transit Corridor Project **Comment [JAA1]:** Since the MMP now reflects "Program" rather than "Plan", the text reference within the ROD needs to be consistent.

Introduction to Mitigation Monitoring Program

This Attachment describes the environmental Mitigation Monitoring Program that will be conducted by the City and County of Honolulu (City), or its successor agency, and the FTA for the Project that is the subject of this environmental Record of Decision (ROD). The purpose of the Mitigation Monitoring Program- is to ensure the execution of all environmental and related commitments made in the Final EIS, in this ROD, and in the Section 106 Programmatic Agreement (PA) for the Project. The mitigation commitments identified for the Project in the Final EIS, ROD, and PA must be implemented by the City (or its successor agency) if the Project proceeds with any FTA financial assistance. These mitigation measures are now incorporated into the definition of the Project. The City (or its successor agency) is prohibited from withdrawing or substantially changing any of the mitigation commitments identified in the Final EIS, ROD, and PA for the Project without express written approval by FTA. In addition, any change to the Project that may involve new or changed environmental or community impacts not yet considered in the existing environmental record must be reviewed in accordance with FTA environmental procedures (23 CFR Part 771.130) and approved by FTA.

Upon FTA's signing of the ROD, the City (or its successor agency) will immediately initiate the Mitigation Monitoring Program and continue it during final design, construction, and start-up of the Project. The purposes of the Mitigation Monitoring Program are: (1) to assist City (or its successor agency) in fulfilling its commitments set forth in the Final EIS, ROD, and PA; and (2) to give FTA a means of checking that its mitigation commitments are, in fact, being met. The Mitigation Monitoring Program will consist of three activities:

- The City (or its successor agency) shall maintain and update the list or database of mitigation commitments provided in this
 Attachment. Updates shall add to the list or database any environmental commitment resulting from the consultations required
 in the environmental record, from permits issued by Federal, State, or City agencies, and from new information that may
 becomes available as archaeological investigations and construction proceed.
- Tracking the status of the implementation of each mitigation measure by the City (or its successor agency).
- Quarterly review of the Program by the City (or its successor agency) and FTA.

This Attachment is also intended to assist the City (or its successor agency) in meeting its commitments and responsibilities by providing a summary list of the environmental commitments, consultations, and mitigation measures stipulated in the Project's

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environmental record. The Final EIS, the PA, and other parts of the ROD provide the needed details about each item listed in this Attachment. The City (or its successor agency) can use this Attachment to incorporate the environmental commitments and mitigation requirements into the Project's plans and specifications and contract documents. Mitigation Monitoring Program for the Page 3 Honolulu High-Capacity Transit Corridor Project

Mitigation ID and Reference	Mitigation Measure	Timing of Mitigation Measure	Responsible Party for Implementing Mitigation	Status of Implementation of this Project Element
Property Ac	quisition and Displacements			
A01 FEIS Sec.4.4	Where relocations will occur, the City will compensate the affected property owners, businesses, and residents in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act (49 CFR part 24).	Design and right-of-way acquisition	City with the right-of- way (ROW) team	
A02 FEIS Sec.4.4	The City will assist all persons and businesses displaced by the Project in locating suitable replacement housing and business sites within an individual's or business's financial means.	Design and right-of-way acquisition	City with the ROW team and General Engineering Contractor (GEC)	
A03 FEIS Sec.4.4	The City will acquire any real property or real property rights needed for the Project in accordance with Uniform Relocation Assistance and Real Property Acquisition Policies Act (49 CFR part 24). The Real Estate Acquisition Management Plan (RAMP) approved by FTA will be used to monitor compliance parcel by parcel.	Design and right-of-way acquisition	City with the ROW team and GEC	
A04 FEIS Sec.4.4	The City will provide relocation services to all displaced business and residential property owners and tenants without discrimination; persons, businesses, and organizations displaced as a result of the Project will be treated fairly and equitably.	Design and right-of-way acquisition-	City with the ROW team and GEC	
A05 FEIS Sec.4.4	Where Iprivate landscaping, sidewalks, or driveway access will be affected by the Project, coordination will occur with the landowner, and these property features will be replaced, or the property owner will be compensated in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act (49 CFR part 24).	Design and Construction	City with the GEC and, design and construction contractors	
A06 FEIS <u>Sec. 4.4</u>	For ceded lands within the Project right-of-way, ownership of these lands will not change. The City will obtain the appropriate permissions from the State for any ceded lands needed for the Project.	Design and right-of-way acquisition	City with the ROW team	
A07 ROD	To the extent that the Banana Patch community so desires, it will be relocated as a community to a location where its unique lifestyle can be maintained. This mitigation commitment goes beyond exceeds beyond the requirements of the Uniform Relocation Assistance and Real Property Acquisition Policies Act and is needed to comply with Executive Order 12898.	Design and right-of-way acquisition	City with the ROWright-of-way team	

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Mitigation ID and Reference	Mitigation Measure	Timing of Mitigation Measure	Responsible Party for Implementing Mitigation	Status of Implementation of this Project Elemen
Community	Facilities			
CF01 FEIS Sec. 4.5	The City will negotiate partial acquisition or a property use agreement with the University of Hawai`i System. The City will replace light posts that are removed at Honolulu Community College.	Final-Design and construction	City with the Segment IV contractors	
CF02 FEIS Sec. 4.5	The City will replace or relocate on school property the affected portable buildings at Waipahu High School. The City will construct a retaining wall and a new access road to the football field.	Final-Design and construction	City with the Segment 1_contractors	
CF03 FEIS Sec. 4.5	The City will relocate the portable administration buildings and parking spaces at Leeward Community College. The City will negotiate partial acquisition or a property use agreement with the University of Hawai`i System for the needed land under its control.	Final-Design and construction	City with the Segment 4-1_contractors	
CF04 FEIS Sec. 4.5	For the land needed at the UH Manoa Urban Garden Research Center, the City will negotiate partial acquisition or a property use agreement with the University of Hawai i System.	Final-Design and construction	City with the Segment 1_contractors	
CF05 FEIS Sec. 4.5	The City will negotiate a partial acquisition or a property use agreement with the Federal government for the following properties: Nimitz Field Pearl City Post Office Honolulu Post Office Prince Kühiö Kalanianafole Federal Building/Courthouse Pearl Harbor Complex	Final-Design and right-of-way acquisition	City with the GEC	
CF06 FEIS Sec. 4.5	The City will negotiate a partial acquisition or a property use agreement with the State for: Oʻahu Community Correctional CenterFacility and Honolulu International Airport.	Final-Design and right-of-way acquisition	City with the GEC	
CF07 FEIS Sec. 4.5	The City will coordinate with other agencies and stakeholders on the design of the streetscape affected by the Project.	Final-Design and construction	City with the Design contractors	
CF08 FEIS Sec. 4.17	The City shall require the design of the vehicle storage and maintenance facility to achieve a LEED certification at the "Silver" level.	Final Design and construction	City with the Design contractors	

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Mitigation ID and Reference	Mitigation Measure	Timing of Mitigation Measure	Responsible Party for Implementing Mitigation	Status of Implementation of this Project Element
Visual				
V01A FEIS Sec. 4.8	The City shall develop and apply design guidelines that will establish a consistent design framework for the Project with consideration of local context. The City will ensure that the Project's design guidelines are followed.	Design and Construction	City with the Design and Construction contractors	
V01B FEIS Sec. 4.8	The City will ensure that the Project's design guidelines require that guideway materials and surface textures be selected in accordance with generally accepted architectural principles to achieve integration between the guideway and its surrounding environment.	Design	City with the Design contractors	
V01C FEIS Sec. 4.8	The City will ensure that the Project's design guidelines require that stations and park-and-ride facilities be designed in a manner that is compatible with the surroundings and are well integrated into the existing urban fabric.	Design	City with the Design contractors	
V01D FEIS Sec. 4.8	The City will ensure that the Project's design guidelines require that the Project's lighting fixtures incorporate directional shielding where needed to avoid the intrusion of light into sensitive land uses.	Design	City with the Design contractors	
V01E FEIS Sec. 4.8	The City will ensure that the Project's design guidelines require that landscaping is used to screen traction power substations in sensitive areas such as residential areas.	Design	City with the Design contractors	
V01F FEIS Sec. 4.8	The City will ensure that the Project's design guidelines require that traction power substations be integrated into larger structures in the central business district, to the extent possible.	Design	City with the Design contractors	
V01G FEIS Sec. 4.8	The City will ensure that the Project's design guidelines require that the Project's signage, materials, street furniture, landscaping, and other detailed design elements enhance the visual environment to the extent possible.	Design	City with the Design contractors	
V01H FEIS Sec. 4.8	The City will ensure that the Project's design guidelines require that the physical form of the Project stations and support facilities embody Honolulu's and Hawaii's rich cultural heritage.	Design	City with the Design contractors	

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Mitigation ID and Reference	Mitigation Measure	Timing of Mitigation Measure	Responsible Party for Implementing Mitigation	Status of Implementation of this Project Elemen
V01I FEIS Sec. 4.8	The City will ensure that the Project's design guidelines require that the station designs be context-sensitive, and that each station be functionally integrated with its surroundings and culturally expressive of its location.	Design	City with the Design contractors	
V01J FEIS Sec. 4.8	The City will ensure that the Project's design guidelines require that the lighting design at stations influence the attractiveness of the stations.	Design	City with the Design contractors	
V01K FEIS Sec. 4.8	The City will ensure that the Project's design guidelines require that glare and light spill from transit station lights and reflective surfaces be minimized.	Design	City with the Design contractors	
V01L FEIS Sec. 4.8	The City will ensure that the Project's design guidelines require that the Project use full cut-off luminaries (fixture and lamp design) and low-reflective surfaces.	Design	City with the Design contractors	
V01M FEIS Sec. 4.8	The City will ensure that the Project's design guidelines require that light sources in the Project's parking structures not be visible from outside the structure, including the lights on the top decks.	Design	City with the Design contractors	
V01N FEIS Sec. 4.8	The City will ensure that the Project's design guidelines require that the Project's place in Hawaii be defined by creating an inspired ground plane with landscape planting, paving, and furniture.	Design	City with the Design contractors	
V01O FEIS Sec. 4.8	The City will ensure that the Project's design guidelines require that architectural design components unify the guideway and stations over the entire project. To achieve this unity, the City will ensure that the Project's design guidelines require that design elements be repeated in all stations allthough certain materials be varied based on the community context.	Design	City with the Design contractors	
V01P FEIS Sec. 4.8	The City will ensure that the Project's design guidelines require that the Kapalama Station have a special planting of true kamani trees.	Design	City with the Design contractors	
V01Q FEIS Sec. 4.8	The City will ensure that the Project's design guidelines require that trees displaced by the Project be transplanted to other areas if possible, and that the wood from trees not transplanted be repurposed.	Design	City with the Design contractors	

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Mitigation ID and Reference	Mitigation Measure	Timing of Mitigation Measure	Responsible Party for Implementing Mitigation	Status of Implementation of this Project Element
V01R FEIS Sec. 4.8	The City will ensure that the Project's design guidelines require: that street tree plantings or transplantings occur adjacent to stations and along the alignment wherever existing streetscape is affected by the Project; that these tree plantings be placed every 50 feet in residential areas and every 40 feet in commercial areas; and that trees be planted a minimum of 3 feet from curbs and 2 feet from the edge of sidewalks.	Design	City with the Design contractors	
V01S FEIS Sec. 4.8	The City will ensure that the Project's design guidelines require that planting and paving design play a pivotal role in increasing station identity and direct patrons to the station entrance.	Design	City with the Design contractors	
V01T FEIS Sec. 4.8	The City will ensure that the Project's design guidelines require that station approaches link entry plazas with drop-off lanes and public walkways in ways that allow for pedestrian circulation and seating-	Design	City with the Design contractors	
V01U FEIS Sec. 4.8	The City will ensure that the Project's design guidelines require that tall vertical plantings or native vines be used to minimize the visibility of traction power substations.	Design	City with the Design contractors	
V01V FEIS Sec. 4.8	The City will ensure that the Project's design guidelines require that a minimum of 5 foot walkways be provided around all traction power substations that are near stations.	Design	City with the Design contractors	
V01¥W FEIS Sec. 4.8	The City will ensure that the Project's design guidelines require that the guideway columns be softened in appearance and be protected from graffiti by planting native vines that will cover the column, and that the surface texture of the columns be designed to encourage vine attachment and growth.	Design	City with the Design contractors	
V01X FEIS Sec. 4.8	The City will ensure that the Project's design guidelines require that the plant material be used to provide human scale impressions of the Project.	Design	City with the Design contractors	
V01Y FEIS Sec. 4.8	The City will ensure that the Project's design guidelines require that the plantings guideway columns be softened by plantings in specified areas.	Design	City with the Design contractors	
V01Z FEIS Sec. 4.8	The City will ensure that the Project's design guidelines require that station designs provide for tree relocations in the station area.	Design	City with the Design contractors	

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Mitigation ID and Reference	Mitigation Measure	Timing of Mitigation Measure	Responsible Party for Implementing Mitigation	Status of Implementation of this Project Element
V02 FEIS Sec. 4.8	The City will ensure thatengage engage a certified arborist will to decide which trees should be transplanted, where they should be transplanted, and where new trees should be planted and to advise on all other Project matters related to trees.	Design and construction	City with the design and construction contractors	
V03 FEIS Sec. 4.8	The City will ensure that the Project's design guidelines require that the certified arborist for the Project decide which existing trees should be protected in place.	Design	City with the Design contractors	
V04 FEIS Sec. 4.8	The City will ensure that the materials used in station construction be consistent with the cultural and historic guidance and recommendations set forth in the Design Language Pattern Book.	Design and construction	City with the design and construction contractors	
V05 FEIS Sec. 4.8	The City shall coordinate the Project's design with planning for Transit Oriented Development (TOD) by the City-and the Department of Planning and Permitting (DPP).	Design	City with the Design contractors for all segments and stations	
V06 FEIS Sec. 4.8	The City shall consult with the communities surrounding each station for input on station design elements through a series of well-advertiszed station design workshops that solicit community input and ideas about the interface between each station and the surrounding community.	Design	City with the Design contractors for all stations	
V07 FEIS Sec. 4.8	The City will ensure that the Project's street-level visual impacts are mitigated by landscape and streetscape improvements	Design and construction	City with the design and construction contractors	
V08 FEIS Sec. 4.8	The City shall engage a qualified landscape architect to prepare plans for landscape and streetscape improvements, including new plantings, to mitigate the visual impacts of the Project.	Design and construction	City with the Design contractors for all segments and stations	
V09 FEIS Sec. 4.8 <u>PA</u>	The City will implement Design Standard requirements as set forth in StipulationectionSection IV of the Section 106 Programmatic Agreement (PA), including the completion of neighborhood design workshops and the review of preliminary designs by the PA signatories and concurring parties.	Design	City with the Design contractors for all guideway segments and stations	

Comment [az3]: A certified arborist may be hired by the construction contractor as specified in the contract documents

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Mitigation ID and Reference	Mitigation Measure	Timing of Mitigation Measure	Responsible Party for Implementing Mitigation	Implementation of this Project Element
Landscapin	g			
T01 FEIS Sec. 4.15	The City shall ensure that existing trees affected by the Project are transplanted to areas as close to their original locations as feasible or are replaced with new trees.	Design and construction	City with the designers and construction contractors	
T02 FEIS Sec. 4.15	The City will ensure that, if planting a new tree does not offer comparable vegetation to the older mature, tree that was removed, additional young trees are will be planted that will shortly develop benefits similar to those of the mature tree removed.	Design and construction	City with the designers and construction contractors	
T03 FEIS Sec. 4.15	The City shall ensure that street tree pruning, removal, and planting complies with local ordinances and is supervised by a certified arborist engaged in the Project.	Design and construction	City with the designers and construction contractors	\(\frac{1}{2} \)
T04 FEIS Sec. 4.15	The City shall ensure that the locations of transplanted plants are specified by the certified arborist engaged for the Project and that the certified arborist uses the criteria presented on page 4-175 of the FEIS in determining transplant locations.	Design and construction	City with the designers and construction contractors	
T05 FEIS Sec. 4.15	The City shall require trees suitable for transplanting displaced by construction to be relocated to a tree nursery until they can be transplanted to another part of the Project area.	Design and construction	City with the designers and construction contractors.	
T06 FEIS Sec. 4.15	Wherever the Project requires the removal of trees, the City shall require that a landscaping plan with new plantings that provide similar advantages to the community is developed and implemented.	Design and construction	City with the designers and construction contractors	
IS01 FEIS	The City shall ensure that all new plantings be non-invasive plants as defined by the Hawai'i Chapter of the American Society of Landscape Architects, and that native plants be used wherever appropriate.	Design and construction	City with the designers and construction contractors.	
Natural Res	ources			
NR01 FEIS Sec. 4.13	The City will secure a Certificate of Inclusion from the State in the existing Habitat Conservation Plan (HCP) for koʻoloaʻula and will follow all the measures and requirements in the existing HCP. If a new HCP is needed, or iff the existing HCP needs to be amended for any reason, the City will implement the measures outlined by the USFWS in the new or amended HCP.	Design and construction	City with the design and construction GEC contractorsGEC	

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Mitigation ID and Reference	Mitigation Measure	Timing of Mitigation Measure	Responsible Party for Implementing Mitigation	Status of Implementation of this Project Elemen
NR02 ROD	The City shall add the measures and monitor the requirements of the ko'oloa'ula HCP applicable to this Project, in coordination with the USFWS to this monitoring program.	Design and construction	City with the design and construction contractorsCity	
Pedestrian a	and Bicycle Facilities			
PB01 FEIS <u>Sec.</u> CH. 3 <u>3.4</u>	The City will design and build all sidewalks created or modified by the project to ADA standards.	Design and construction	City with the design and construction contractors	
PB02 FEIS <u>Sec.</u> 3.4CH.CH. 3	The City will widen the curb lane on Kamehameha Highway to 13 feet to facilitate its designation as a bike route.	Design and construction	City with the design and construction contractors	
PB03 FEIS CH. 3 <u>Sec. 3.4</u>	In accordance with Table 3-25 of the Final EIS, the City will provide sidewalks of the width specified in the Table when building or modifying sidewalks on Farrington Highway, Dillingham Boulevard, and Kamehameha Highway.	Design and construction	City with the design and construction contractors	
PB04 FEIS <u>Sec.</u> 3.4CH.CH. 3	The City will connect the rail station at the airport to the overseas and interisland terminals with ground-level pedestrian walkways.	Design and construction	City with the design and construction contractors	
Other Trans	portation Facilities			
OT01 FEIS Ch. 3 <u>Sec. 3.4</u>	The City will coordinate with the Federal Aviation Administration, the Airports Division of the Hawaii DOT, and the U.S. Postal Service on the final-design of the guideway and station at the Airport.	Design	City	
OT02 FEIS Ch. 3 <u>Sec. 3.4</u>	Just over 45 days prior to commencing construction at the Airport, the City will notify the FAA by appropriate means.	Design prior to Construction	City	

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Mitigation ID and Reference	Mitigation Measure	Timing of Mitigation Measure	Responsible Party for Implementing Mitigation	Status of Implementation of this Project Element
OT03 FEIS Ch. 3 <u>Sec. 3-4</u>	The City shall modify the following roadway intersections as specified in Section 3.4 of the Final EIS: North-South Road and East-West Connector Road North-South Road and Future Road B Kamehameha Highway at Waihona St. Farrington Highway and Waiawa Road Kamehameha Highway and Kuala St. Kona St. and Ke'eaumoku St. H-2 northbound on-ramp and merge area at Kamehameha Highway	Design and construction	City with the design and construction contractors	
OT04 FEIS Ch. 3 <u>Sec. 4-4</u> 3	The City shall control spillover parking at stations with one or more mitigation strategies as needed, including, but not limited tothroughthrough parking restrictions or issuance of parking permits	Start-upOperationup	City	
OT05 FEIS Ch. 3Sec. 3.4 and 3.5	The City shall establish temporary loading zones during construction and permanent loading zones for freight and passengers as specified in the Final EIS Sec. 3.4Chapter 34	Construction	City with the construction contractors	
Public Invol	vement			
PI01 <u>FEIS Sec.</u> 4.18 and 8.7	The City will continue public involvement activities throughout the final design and construction periods. The Project website will be the primary information source for up-to-date Project information. In addition, a Project hotline, news releases, instant messaging and emails, and flyers will be used to provide information to the public.	Design and construction	City with contractors	
PI02 FEIS Sec. 4.6	The City will coordinate with each neighborhood where a station is located to design measures that will enhance the interface between the transit system and the surrounding community.	Design	City with contractors	
Noise and V	ibration			
NV01 FEIS Sec. 4.10	The City will include a requirement for wheel skirts in the rail vehicle specifications to reduce noise generated by the Project's vehicles.	Rail Vehicle Design and Acquisition	City and GEC with design-build-operator	

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Mitigation ID and Reference	Mitigation Measure	Timing of Mitigation Measure	Responsible Party for Implementing Mitigation	Status of Implementation of this Project Element
NV02 FEIS Sec. 4.10	The City will install sound-absorptive materials within the guideway structure in the vicinity of Project noise impacts predicted at three locations. Eight-hundred feet of sound-absorptive material will be installed from Pupukahi Street to Pupupuhi Street. For the building at 860 Halekauwila Street, sound-absorptive material will be required from 200 feet 'Ewa of Kamani Street to 100 feet Koko Head of Kamani Street; a total of 300 feet. The building at 1133 Waimanu will require sound-absorptive material to be installed between Kamake'e Street and Waimanu Street for a total of 920 feet.	Design and Construction	City with the contractors	
NV 03 FEIS Sec. 4.10	Once the Project is operating, field measurements for noise will be conducted at representative sites. Should the Project's noise impacts exceed the FTA noise impact levels, further mitigation may be implemented on the receivers with the authorization of the property owner.	Operation	City with design-build- operator	
NV04 FEIS Sec. 4.10	The City will design the elevated guideway to include a parapet wall on both sides of the guideway that extends 3 feet above the top of the rail.	Design and Construction	City with the guideway designers and contractors	
NV05 FEIS Sec. 4.10	In the specifications for all traction power substations for the Project the City shall state that the noise generated by the substation measured at the nearest property line must be an hourly Leq of 45 dBA or less in areas with single-family residential uses and an hourly Leq of 50 dBA or less in areas with multifamily residential uses in accordance with Hawai'i state law (HAR 11-46).	Design and Construction	City with the design contractors	
NV06 FEIS Sec. 4.10	The City will construct the two curved tracks in the maintenance and storage yard that are nearest the main building of Leeward Community College with automatic track lubrication devices installed to eliminate any wheel squeal on those curves.	Design and construction	City with the guideway contractors	

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Mitigation ID and Reference	Mitigation Measure	Timing of Mitigation Measure	Responsible Party mplement for Implementing this Party Mitigation Elem	itation o
Contaminat	ed Property and Hazardous Materials			
HMW01 FEIS Sec. 4.12	The City will perform a Phase I Site Assessment, in accordance with the procedures of the American Society for Testing Materials (ASTM), of every property that will be wholly or partially acquired for the Project and will use a contractor qualified to perform such Site Assessments. If recommended by the contractor performing the Phase 1 Site Assessment, the City will perform a Phase II Site Assessment (including collecting and analyzing samples).	ROW acquisition and Design	City with contractors	
HMW02 FEIS Sec. 4.12	If contaminated soils, groundwater, or structures are found on a property to be acquired, the City will consult with the Hazard Evaluation and Emergency Response Office of the Hawaii Department of Health (HEERO-DOH) on the appropriate remediation for the contamination found that considers the proposed transit use of the property.	ROW acquisition and Design	City with contractors	
HMW03 FEIS Sec. 4.12	The City shall ensure that each contaminated property acquired or soon to be acquired for the Project is remediated in accordance with HEERO-DOH requirements.—Such remediation may be performed by a potentially responsible party, such as the previous owner responsible for the contamination, or, if such outside party cannot be made to pay for remediation, the City will perform the remediation as part of the Project.	ROW acquisition and Design	City with contractors	
HMW04 FEIS Sec. 4.12	Regarding the remediation of contaminated right-of-way owned by Hawaii DOT, the City will coordinate with HDOT regarding the work within HDOT right-of-way.	ROW acquisition and Design	City with contractors	
HMW05 FEIS Sec. 4.12	The City shall require that all contractors working on any aspect of the Project comply with all applicable requirements of the Construction Health and Safety Plan.	Construction	City with contractors	

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Mitigation ID and Reference	Mitigation Measure	Timing of Mitigation Measure	Responsible Party for Implementing Mitigation	Status of Implementation of this Project Element
HMW06 FEIS Sec. 4.12	The City shall prepare and execute-implement the following plans (or include them in contract specific waste management plans) to mitigate construction impacts related to wastes and their potential impact to workers, communities and neighborhoods: Construction Safety and Security Plan; Construction Health and Safety Plan; Construction Contaminant Management Plan; Construction Contingency Plan; and Solid Waste Management Plan	Construction	City with the contractors	
Water Reso	urces			
W01 FEIS Sec. 4.14	The City shall mitigate the impacts on water the Waiawa Stream mitigation site and shall include the following: enhancement of the stream to restore and improve ecological and aquatic function; establishment of water quality basins; enhancement of floodway capacity conveyance to achieve zero rise in flood zone by removal of fill and an increase in stream area; extension of existing culvert to Waiawa Stream to correct existing ponding situation; and ecological restoration with native Hawaiian plantings and non-invasive species.	Design and construction	City with the final designer, and contractor for the station.	
W02 FEIS Sec. 4.14	The City shall coordinate with the U.S. Army Corps of Engineers, the Hawaii Department of Health, and the Hawaii Commission on Water Resource Management throughout the design and construction of the Project.	Design and construction	City with the contractors	
W03 ROD	The City shall_addmonitor the requirements of every permits related to water resources to this monitoring Program; through the design and construction quality process to verify that the design and construction contractors are in compliance.	Design and construction	City	
W04 FEIS Sec. 4.14	The City shall require the that the Project's elevated guideway clear-span all streams except those indicated in the FEIS as needing a column within the stream channel.	Design and construction	City with the contractors	
W05 FEIS Sec. 4.14 and ROD	If the U.S. Army Corps of Engineers agrees that a Section 404 Nationwide Permit is appropriate to any phase of the Project, the City shall add the requirements of that particular Nationwide Permit to this monitoring program.	Design and construction	City	

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Comment [az4]: The contractor for the station may not both design and construct the mitigation area (depending on timing of construction of the station, guideway and parking structure). The suggested wording provides options for who and when the site will be designed and constructed.

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Comment [JAA5]: Many of the water permits will be obtained by the contractor, and the City will not be able to list each permit condition for each contract. However, it will be monitoring permit compliance through its QC process.

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Mitigation ID and Reference W06	Mitigation Measure The City shall ensure that any contractor-proposed change to an issued permit is reviewed and approved by the issuing agency before	Timing of Mitigation Measure Design and construction	Responsible Party for Implementing Mitigation City with the design and construction	Status of Implementation of this Project Element
FEIS Sec. 4.14	the contractor is allowed to proceed with the change.		contractors	
Section 4(f)				
4F1 FEIS Ch. 5 <u>Sec. 5.7</u>	Pearl Harbor Bike Path: The section of the bike path temporarily occupied during construction will be fully restored by the City. The City will provide a temporary crossing over the trench to maintain bikeway continuity during construction. The City will repave the bicycle path in the affected area and will restore surrounding plantings disturbed by construction.	Design and Construction	City with the contractors	
4F2 FEIS Ch. 5 <u>Sec. 5.7</u>	Future Middle Loch Park: The land set aside for a future park will be temporarily occupied during construction. The City will restore it to its condition before construction and vacate when outfall construction has been completed. The City will restore plantings disturbed by construction.	Design and Construction	City with the contractors	
4F3 FEIS Ch. 5 <u>Sec. 5.5</u>	Aloha Stadium: As specified in the Final EIS, the City will locate the guideway as close to Kamehameha Highway as possible; the City will coordinate with DAGS on the design of the station and parking lots	Design and Construction	City with the contractors	
4F4 FEIS Ch. 5 <u>Sec. 5.5</u>	Ke'ehi Lagoon Beach Park: As specified in the Final EIS, the City will locate the guideway as close to the northern border of the park as possible, with a curve radius that minimizes the use of parkland other than the already paved-over parking area; the City will restore the tennis courts and add lighting for their nighttime use. The City will landscape the affected areas of the park, including trees, shrubs, grass, and picnic tables, according to a landscaping plan developed in consultation with the Department of Parks and Recreation.	Design and Construction	City with the contractors	
4F5 FEIS Ch. 5 <u>Sec. 5.5</u> and ROD	Pacific War Memorial: As specified in the Final EIS or in the ROD, the City will locate the guideway as close to the northern border of the memorial land as possible; the City will landscape and fence the area affected by the Project according to a landscaping plan developed in consultation with the Ke'ehi Memorial Organization and the Hawaii Disabled American Veterans.	Design and Construction	City with the contractors	

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Mitigation ID and Reference	Mitigation Measure	Timing of Mitigation Measure	Responsible Party for Implementing Mitigation	Status of Implementation of this Project Element
4F6 FEIS Ch. 5 <u>Sec. 5.5</u> and PA	Afuso House, Higa Four-Plex, and Teixeira House: Following the procedure specified in the PA, the City will document these buildings prior to their demolition.	Pre-construction and pre-demolition	City with the contractors	
4F9 FEIS Ch. 5 <u>Sec. 5.5</u> and PA	Lava Rock Curbs: The City shall ensure that all lava rock curbs affected by the Project are marked prior to their removal, are removed with minimal damage and stored securely, and are reinstalled at their approximate original location, and that any stone that is damaged during this process is replaced with in-kind material.	Design and Construction	City with the contractors	
4F11 FEIS Ch. 5 <u>Sec. 5.5</u> and PA	Kapalama Canal Bridge: The City will maintain the existing bridge rails or will replace the bridge rails with new ones that match the appearance of the historic rails in accordance with the Secretary of the Interior's Standards for Treatment of Historic Properties.	Design and Construction	City with the contractors	
4F12 FEIS Ch. 5Sec. 5.5 and PA	Six Quonset Huts: Following the procedure specified in the PA, the City will prepare a Cultural Landscape Report for the Dillingham Boulevard corridor which includes the Quonset Huts, prior to construction.	Design and Construction	City with the contractors	
4F13 FEIS Ch. 5Sec. 5.5 and PA	True Kamani Trees: The City will develop a transplant the trees to a location as close as feasible to the current location of the trees to be removed and will replace any affected trees that cannot be successfully transplanted.	Design and Construction	City with the contractors	
4F14 FEIS Ch. 5 <u>Sec. 5.5</u> and PA	Oahu Railway and Land Company Buildings: The City shall ensure that these buildings are not physically altered for the Project.	Design and Construction	City with the contractors	
4F15 FEIS Ch. 5 <u>Sec. 5.5</u> and PA	Oahu Railway and Land Company basalt paving blocks: The City shall ensure that the guideway completely spans and does not touch the paving blocks and does not physically alter the former Filling Station on the site.	Design and Construction	City with the contractors	

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Mitigation ID and Reference	Mitigation Measure	Timing of Mitigation Measure	Responsible Party for Implementing Mitigation	Status of Implementation of this Project Element
4F16 FEIS Ch. 5 <u>Sec. 5.5</u> and PA	Chinatown Historic District: The City shall ensure that stations in the district are designed with deference to the Secretary of the Interior's Standards for the Treatment of Historic Properties, and that the section 106 consulting parties are given an opportunity to comment on the designs.	Design and Construction	City with the contractors	
4F17A FEIS Ch. 5 <u>Sec. 5.5</u> and PA	Dillingham Transportation Building: The City shall ensure that the station is offset from the building so that the station itself does not block the building's façade, though the guideway will.	Design and Construction	City with the contractors	
4F17B FEIS Ch. 5 <u>Sec. 5.5</u> and PA	Dillingham Transportation Building: The City shall ensure that the building is not altered, and is recorded prior to construction in accordance with the PA.	Design and pre-Construction	City with the contractors	
4F17C FEIS Sec. 5.5 Ch. 5, PA and ROD	Dillingham Transportation Building: The City shall ensure that entrance to the station is designed to fit carefully within the existing historic environment, minimizing the effect on the plaza outside the building.	Design and Construction	City with the contractors	
4F17D FEIS <u>Sec. 5.5</u> Ch. 5, PA and ROD	Dillingham Transportation Building: The City shall work with the Pacific Guardian Center, the manager of the building and plaza, to create a logical pathway for transit users that minimizes the effect on the plaza and arcade.	Design	City with the contractors	
4F18 FEIS <u>Sec. 5.5</u> Ch. 5 and PA	HECO Downtown Plant and Leslie A. Hicks Building: The City shall ensure that the Project only requires demolition of an extension of the Plant building. The City shall ensure that prior to demolition of the extension, the buildings are recorded in accordance with the PA and the historic context study covering the history of Honolulu infrastructure is completed in accordance with the PA.	Design and pre Construction	City with the contractors	

Comment [az6]: . Demolition will likely occur during construction

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Mitigation ID and Reference	Mitigation Measure	Timing of Mitigation Measure	Responsible Party for Implementing Mitigation	Status of Implementation of this Project Element
Permits				
PM01 FEIS Sec. 4.21	Table 4-40 of the Final EIS summarizes permits, certificates, and approvals anticipated to be required for implementation of the Project. Required permits, approvals, and agreements shall be obtained prior to commencing the activity that triggers the permit, approval, or agreement. The City will be responsible for obtaining all permits, approvals, and agreements.	Design and construction	City with the GEC	
	The City shall monitor the requirements of all permits obtained for the Project through the design and construction quality process to verify that the design and construction contractors are in compliance.			
	The City will ensure that all permit, approval, and agreement conditions are added to the Mitigation Monitoring Program.			
PM02 FEIS Sec. 4.21	There are six locations where the Project will either cross or enter interstate freeway airspace, including freeway mainline and access ramps. The City will apply for, and obtain from FHWA, the necessary permits and approvals related to Interstate freeway airspace. The City will ensure that all conditions and mitigations specified in the FHWA permits or approvals are added to this Mitigation Monitoring Program.	Design	City with the GEC	
PM03 ROD	The City will obtain a Section 404 (Clean Water Act) permit from the U.S. Army Corps of Engineers (USACE) for each phase of the Project. FTA expects nationwide permits to apply. In any case, all conditions and mitigations in each Section 404 permit, whether nationwide or individual, shall be incorporated into this Mitigation Monitoring Program.	Design and construction	City with the GEC	
PM04 FEIS Ch. 4 and ROD	The City shall take whatever actions are necessary to obtain a determination by the State that the Project is consistent with the Coastal Zone Management Plan. All mitigation actions required by the State's consistency determination shall be added to this Mitigation Monitoring Program.	Design and construction	City	

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Mitigation ID and Reference	Mitigation Measure	Timing of Mitigation Measure	Responsible Party for Implementati this Proje Mitigation
Stormwater	Management and Floodplains		
SM01 FEIS Sec. 4. <u>14</u> 2	The City shall require that the stormwater management system at the maintenance and storage facility be designed so that the stormwater discharged into Pearl Harbor meets or exceeds the water quality requirements for the estuary.	Design and construction	City with contractors
SM02 FEIS Sec. 4.2 <u>.14</u>	The City shall require that the stormwater management system at the maintenance and storage facility be designed with on-site catch basins and connecting underground pipes that drain into a detention basin. Stormwater from the detention basin will be piped through an underground pipe and concrete box culvert into Middle Loch of Pearl Harbor. The system will include a permanent oil-water-sand separators.	Design and construction	City with contractors
SM03 FEIS Sec. 4.14 and ROD	The City shall add to this monitoring programmonitor the requirements of the Storm Water Management Plan which incorporates the NPDES permit requirements, through the design and construction quality process to verify that the construction contractors are in compliance.	Design	City
SM04 FEIS Sec. 4.14	The City shall require that the Project be designed so that its elements and facilities do not encroach significantly on the 100-year floodplain anywhere.	Design	City with contractors
SM05 FEIS Sec. 4.14	The City shall require that the Project be designed so that its elements and facilities comply with all applicable State and local flood zone regulations.	Design	City with contractors
SM06 FEIS Sec. 4.14 and ROD	The City shall require that permanent "best management practices" for stormwater be included in the design of the Project's vehicle storage and maintenance facility and park-and-ride lots. The City shall specify these BMPs in detail and add them to this monitoring program.	Design and construction	City with contractors
SM07 FEIS Sec. 4.14 and ROD	The City shall require that permanent "best management practices" for stormwater be included in the design of the Project's guideway wherever it crosses a waterbody. The City shall specify these BMPs in detail and add them to this monitoring program.	Design and construction	City with contractors

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Mitigation ID and Reference	Mitigation Measure	Timing of Mitigation Measure	Responsible Party for Implementing Mitigation	Status of Implementation of this Project Element
SM08 FEIS Sec. 4.14	The City will ensure that stormwater runoff from the Project is filtered through landscaped areas and sedimentation collars wherever possible.	Design and construction	City with contractors	
SM09 FEIS Sec. 4.14	The City will ensure that stormwater runoff from the Project is filtered through specially designed bioinfiltration units near water bodies. In locations where space does not allow for this approach, the City will install downspout filters on drains near impaired waters.	Design and construction	City with contractors	
SM10 FEIS Sec. 4.14 and ROD	The City will ensure that permanent BMPs are installed as part of the project to address stormwater quality before the stormwater from the Project is discharged into streams or storm drains. These BMPs shall promote a natural, low-maintenance, sustainable approach to managing stormwater quality upon its discharge. The City shall specify these BMPs in detail and add them to this monitoring program.	Design and construction	City with contractors	
SM11 FEIS Sec. 4.14	The City will ensure that all stormwater downspouts from the guideway include erosion controls and energy dissipation devices to prevent any scour of receiving land.	Design and construction	City with contractors	
SM12 FEIS Sec. 4.14	The City shall ensure that bioretention areas, vegetated buffer strips, dry swales, water quality basins, and oil-water separators are considered for the Project's vehicle storage and maintenance facility and park-and-ride lots if needed to achieve the water quality commitment.	Design and construction	City with contractors	
SM13 FEIS Sec. 4.14	The City will ensure that the stormwater management system directs stormwater runoff into the ground to recharge the groundwater system as needed to sustain the existing aquifer system. Oil-water separators will be installed wherever needed to protect groundwater quality.	Design and construction	City with contractors	
SM14 FEIS Sec. 4.14 and ROD	The City will ensure that construction BMPs are used and are sufficient to protect groundwater quality during construction. The City shall specify these BMPs in detail and add them to this monitoring program.	Construction	City with contractors	
SM15 FEIS Sec. 4.14	The City will ensure that any guideway column that must be placed in a stream channel aligns with an existing column of other structures in the channel.	Design and construction	City with contractors	

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Mitigation ID and Reference	Mitigation Measure	Timing of Mitigation Measure	Responsible Party for Implementing Mitigation	Status of Implementation of this Project Element
SM16 FEIS Sec. 4.14	The City will ensure that the mitigation of impacts on Waiawa Stream includes, but is not limited to, the restoration of portions of the stream bank and riparian zone previously covered with fill material, and natural landscaping of all riparian areas along the stream affected by the Project.	Design and construction	City with contractors	
Constructio	n Effects			
CON01 FEIS Sec. 4.18	During construction, the City shall maintain all landscaped areas within the construction limits to HDOT standards using HDOT maintenance specifications including mowing, edging, trimming, weeding, pruning, care of shrubs and trees, fertilizing, application of pesticides and herbicides, clearing gutters, swales and ditches, removal of invasive plants, and removal and disposal of rubbish and debris.	Construction	City with the contractors	
CON02 FEIS Sec. 3.5, 4.18	The City shall require that construction staging occur on properties needed for the guideway, the stations (including park-and-ride lots), and the maintenance and storage facility. FTA shall be informed if any contractor requires additional staging areas, in which case an appropriate environmental review will be performed	Construction	City with the contractors	
CON03 FEIS Sec. 3.54.18	The City shall develop a Maintenance of Traffic (MOT) Plan and a Transit Mitigation Program (TMP). The MOT will include site-specific traffic-control measures and will be developed in consultation with Hawaii DOT. Both the MOT and TMP will be shared with the public through the Project website.	During-Final Design and prior to construction	City with the designers and Contractors	
CON04 FEIS Sec. 4.183.5	The City shall formulate Work Zone Traffic Control Plans, including detour plans, during Final Design in cooperation with HDOT and other affected jurisdictions.	Prior to construction Design and construction	City with the designers and Contractors	

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Mitigation ID and Reference	Mitigation Measure	Timing of Mitigation Measure	Responsible Party for Implementing Mitigation	Status of Implementation of this Project Element
CON05 FEIS Sec. 4.18	The City will employ a dedicated environmental compliance manager to oversee construction contractor compliance with all stormwater Best Management Practices (BMPs), construction noise mitigation measures, utility coordination, business access requirements, and any mitigation plans prepared for the Project, including those presented in permit conditions and the MOT Plan.	Design and construction	City with the GEC	
	The City shall monitor the requirements of the Storm Water Management Plan through the design and construction quality process to verify that the construction contractors are in compliance.			
CON06 FEIS Sec. 4.18	The City shall maintain access to businesses in the Project area throughout construction though there may be temporary changes to access and traffic movement during construction.	Construction	City with the Contractors	
CON07 FEIS Sec. 4.18	Utility service to abutting properties may be temporarily interrupted for short periods during construction. The City shall contact property owners and tenants prior to any interruption of utility services. The City shall ensure that replacements for existing utilities provide utility companies the capacity equal to that offered before the replacement. The City shall coordinate with emergency services and utility companies to ensure that utility relocations meet their needs and that sufficient clearance is provided between project elements and utilities	Construction	City with the Contractors	

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Mitigation ID and Reference	Mitigation Measure	Timing of Mitigation Measure	Responsible Party for Implementing Mitigation	Status of Implementation of this Project Element
CON08 FEIS Sec. 4.18	The City will require all contractors to incorporate construction management practices to minimize visual impacts during construction, including the following:	Construction contracting and construction	City with the Contractors	
	Remove visibly obtrusive erosion-control devices, such as silt fences, plastic ground cover, and straw bales, as soon as an area is stabilized			
	Locate stockpile areas in less visibly sensitive areas whenever possible so they are not visible from the road or to residents and businesses			
	Shield temporary lighting and direct it downward to the extent possible			
	Limit the times construction lighting can be used in residential areas			
	Replace removed street trees and other vegetation with appropriately sized vegetation as soon as practical after construction is completed in the same location or another location in accordance with City and State requirements		4 647	
CON09 FEIS Sec. 4.18	The City will require contractors to takes appropriate actions to comply with fugitive dust requirements. Contractors must make use of the following control measures whenever needed to reduce fugitive dust:	Construction contracting and construction	City with the Contractors	
	Minimize land disturbance Use watering trucks to moisten disturbed soil			
	Use low emission equipment when feasible			
	Cover loads when hauling dirt			
	Cover soil stockpiles if exposed for long periods			
	Use windbreaks to prevent accidental dust pollution			
	Limit the number of vehicular paths and stabilize temporary roads			
	Maintain stabilized construction area ingress/egress areas			
	Wash or clean trucks prior to leaving construction sites			
	Minimize unnecessary vehicular activities			

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Mitigation ID and Reference	Mitigation Measure	Timing of Mitigation Measure	Responsible Party for Implementing Mitigation	Status of Implementation of this Project Element
CON10 FEIS Sec. 4.18 and ROD	Temporary structures may be placed in, or on the banks of, Kaloʻi Gulch, Waiawa Stream, Waiawa Springs, Moanalua Stream, Kapālama Canal Stream, and Nuʻuanu Stream during construction. The City will require that appropriate permits for these structures are obtained from Federal and State agencies by the contractors. The City shall add to this mitigation monitoring program all conditions and mitigations specified in these permits, including but not limited to the removal of temporary structures, the restoration of riparian areas affected by the structures, and BMPs developed to mitigate caused by the placement of fill.	Construction	City with the GEC	
CON11 FEIS Sec. 4.18	The City shall use best management practices (BMPs) to mitigate potential impacts to streams during construction, such as: isolating the construction area from the water with cofferdams, sandbags, or other temporary water-diversion structures; Prohibiting the fueling of equipment in the stream channel; Preventing wet or green concrete from contact with flowing water; Maintaining fish passage and avoiding work in streams during fish spawning seasons; Minimizing the removal of riparian vegetation; and the numerous other BMPs listed on page 4-210 of the FEIS.	Construction contracting and construction	City with the contractors	
CON12 FEIS Sec. 4.18	The City shall prohibit the contractors from entering any wetlands during construction. The City will ensure that the wetlands are designated as no-work areas on the Final Design plan sheets and that the contractor installs fencing around the wetland areas to designate the no-work area. The City shall have the fencing inspected regularly to ensure that it is maintained.	Construction contracting and construction	City with the Contractors	
CON13 FEIS Sec. 4.18	Excessive or differential settlement due to drilled shaft dewatering and the resultant depression of the groundwater surface can cause cracking and other damage to structures. The City shall require contractors to monitor groundwater levels and settlements wherever dewatering is performed.	Construction contracting and construction	City with the Contractors	

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Mitigation ID and Reference	Mitigation Measure	Timing of Mitigation Measure	Responsible Party for Implementing Mitigation	Status of Implementation of this Project Element
CON14 FEIS Sec. 4.18	The City shall not allow uncontrolled releases of drilling fluids and shall require contractors to collect and treat displaced fluids in accordance with permit requirements.	Construction contracting and construction	City with the Contractors	
CON15 FEIS Sec. 4.18	The City shall require construction contractors to use stormwater BMPs that include, but are not limited to, the following: Minimize land disturbance Stabilize or cover the surface of soil piles Revegetate all cleaned and grubbed areas to the extent possible Maintain stabilized construction area ingress/egress areas Wash or clean trucks prior to leaving the construction site Install silt fences and storm drain inlet filters Prevent off-site stormwater from entering the construction site Implement other stormwater management techniques	Construction contracting and construction	City with the Contractors	
CON16 FEIS Sec. 4.18	The City shall temporarily relocate passenger loading zones on Halekauwila Street near South Street and on Halekauwila Street near Kamani Street and a freight loading zone on Kaʻaahi Street, to nearby locations for the duration of construction.	Prior to constructionDesign	City with the Contractors	
CON17 FEIS Sec. 4.18	The City will keep the public aware of upcoming work locations, will post- information on the Project website about parking disruptions and alternatives, and will post street signs directing people to nearby locations with available parking. The City will coordinate with property owners regarding the timing of	Construction	City with the Contractors	
	construction and other issues to minimize disruption to off-street parking.			

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Mitigation ID and Reference	Mitigation Measure	Timing of Mitigation Measure	Responsible Party for Implementing Mitigation	Status of Implementation of this Project Element
CON18	The City shall ensure the following:	Construction	City with the Contractors	
FEIS Sec. 4.18	access to existing bicycle and pedestrian facilities will be maintained during all phases of construction as safety allows;		Contractors	
	warning or notification signs will be provided;			
	pedestrian detours will be reviewed to ensure they are reasonable for all pedestrians and meet ADA regulations;			
	proper deterrents, such as barriers or fencing, will be placed to prevent access through the construction area;			
	pedestrian flow will be channelized in areas where sidewalks are near construction; and			
	alternative pedestrian routes will be provided to avoid hazardous areas.		1 - 1 - A A - 3 - 1 A A - 3 - 1 A A - 3 - 1 A A - 3 - 1 A A - 3 - 1 A A A A - 3 - 1 A -	
CON19	During construction, the City will provide local travelers with	Construction	City with the GEC	
FEIS Sec. 4.18	information about traffic disruptions and bus route changes through the Project website, a telephone hotline, and media outlets.			
CON20	For buildings closer than 75 feet to construction activities that	Construction contracting and	City with the	
FEIS Sec. 4.18	generate ground vibrations, the City will require contractors to perform a video survey of the immediate area prior to the start of any construction activity where vibration levels may be high enough to affect surrounding structures.	construction	Contractors	
CON21	Prior to construction, the City shall obtain a Community Noise	Prior to construction	City with the GEC	
FEIS Sec. 4.18	Variance from the Hawai'i Department of Health (HDOH) for the Project. The City will obtain noise permits prior to the construction of each phase of the Project. The permits will regulate construction times and activities and include mitigation commitments.			
CON22 FEIS Sec. 4.18	Prior to clearing and grubbing near the koʻoloaʻula contingency reserve, the City will have the area surveyed by a qualified horticulturist approved by Department of Land and Natural Resources (DLNR). If any koʻoloaʻula are found, the City will have the	Prior to clearing and grubbing and construction activities	City with the GEC	
	horticulturist remove the plants and transplant them to the contingency reserve or other DLNR-approved location.			

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Mitigation ID and Reference	Mitigation Measure	Timing of Mitigation Measure	Responsible Party for Implementing Mitigation	Status of Implementation of this Project Element
CON23 FEIS Sec. 4.18	The City will survey all large canopy trees to be pruned prior to construction to ensure that no trees have white tern chicks. If any chicks are found, the City will delay the pruning until the chicks fledge.	Prior to construction	City with the GEC	
HS01 FEIS	The City will require contractors to develop a Construction Health and Safety Management Plan which meets the requirements of 29 CFR 1910 and 1926 and all other applicable Federal, State, and Local regulations and requirements related to construction health and safety. The plan will also include provisions for identifying asbestos and lead-based paint that will be disturbed by the Project.	Prior to construction and during construction	City with the construction contractors	
Safety and	Security			
SS01 FEIS	The City will develop a project-specific Safety and Security Management Plan and submit it to FTA for approval. The plan will define the activities and methods for identifying, evaluating, and resolving potential safety hazards and security vulnerabilities and will establish responsibilities and accountabilities for safety and security during the final design, construction, and start-up phases of the Project.	Final Design	City with the GEC and other contractors	
SS02 FEIS	The City shall require all contractors to participate in the Project Safety and Security Certification Program for the duration of the Project Contract. This program will require, at a minimum, that the contractor develop and follow a Safety and Security Certification Plan in conformance with the Project Safety and Security Management Plan and the FTA Handbook for Transit Safety and Security Certification.	Prior to construction and during construction	City with the contractors	
SS03 ROD	The City shall implement the measures presented in the <i>Threat and Vulnerability Assessment</i> review by General Services Administration (GSA) for the Federal building.	Design and construction	City with the designers and contractors	
SS04 ROD	The City shall implement the design changes made for clearance distance from the Federal building, as reviewed by GSA.	Design and construction	City with the designers and contractors	

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Mitigation ID and Reference	Mitigation Measure	Timing of Mitigation Measure	Responsible Party for Implementing Mitigation	Status of Implementation of this Project Element
SS05	The City shall implement the following safety and security measures:	Design and construction	City with the designers	
FEIS Sec. 4.5	Require Project designs and architectural details that enhance safety;		and contractors	
	Incorporate close circuit television cameras and lighting into station designs;			
	Prior to opening for revenue operation, develop and conduct public educational programs to enhance public awareness of safety and security issues associated with the Project			
Parking				
P01 FEIS	The City will conduct parking surveys prior to starting construction of each station to determine the need for control of overflow parking. Control strategies include, but are not limited to, the following:	Prior to the start of station construction	City with the GEC	
	 Parking restrictions (where parked cars cause safety or congestion problems) 			
	 Parking regulation (e.g., meters, time limits, or other methods to encourage turnover) 			
	 Permit parking (e.g., resident or employee parking) 			
	 Shared parking arrangements (at locations where parking is available but dedicated to another purpose, such as retail centers, office uses, or places of worship) 			
P02	Off-street privately owned parking spaces needed to construct the	Prior to the start of construction	City and the ROW	
FEIS	guideway or stations will be acquired by the City in accordance with the requirements of the Uniform Relocation Assistance and Real Property Acquisition Policies Act.		team	

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Mitigation ID and Reference	Mitigation Measure	Timing of Mitigation Measure	Responsible Party for Implementing Mitigation	Status of Implementation of this Project Element
P03 FEIS	The City shall provide for passenger loading zones through measures such as the following: The passenger loading zone used for a day-care facility on Halekauwila Street between 'Âhui and Kamani Streets will be relocated nearby on Ilaniwai Street from Cooke Street to Kamani Street. As a result, some of the existing on-street parking on Ilaniwai Street will be converted to passenger loading zones during the A.M. and P.M. peak periods.	Prior to the start of construction	City with the Contractors	
	A new passenger loading zone on Halekauwila Street between Punchbowl and South Streets will be installed in the same general location after construction is completed.			
P04 FEIS	The City will relocate the freight loading zone on Kaʻaahi Street nearby.	Prior to the start of construction	City with the Contractors	
P05 FEIS	The City will replace the lost parking at Leeward Community College at an alternate location on campus. The City will coordinate with Leeward Community College during Final Design to relocate the parking.	Final-Design.and construction	City with the Contractors	
Historic Pre	servation			
HP01 Sec. 106 PA XIV.A	City shall develop schedule for implementation of PA stipulations and send to consulting parties, post on Project website	60 days after execution of PA	City	
HP02 Sec. 106 PA See Stipulation XIV.E for specific commitments	City shall hold quarterly meetings with the consulting parties and report on implementation of PA. After the first 24 months, the City shall hold annual meetings with the consulting parties to report on implementation of the PA.	Effective immediately	City	

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Mitigation ID and Reference	Mitigation Measure	Timing of Mitigation Measure	Responsible Party for Implementing Mitigation	Status of Implementation of this Project Element
HP03 Sec. 106 PA See Stipulation 1.H for specific commitments	City shall hire an independent project manager (the <i>Kako'o</i>) to assist with the coordination of all reviews and deliverables required under the terms of the PA. City shall follow hiring process specified in the PA for this hiring.	Within six months of executing the PA	City	
HP04 Sec. 106 PA See Stipulation II for specific commitments	City shall undertake additional studies on Traditional Cultural Properties using a contractor experienced in ethnographic studies and following the process set forth in the PA, including consultation with consulting parties and Native Hawaiian Organizations.	Within the first six months of executing the PA; pre-construction	City	
HP05 Sec. 106 PA See Stipulation II for specific commitments	If the TCP study finds any unexpected Traditional Cultural Properties in an area potentially adversely affected by the Project, FTA and the City will complete determination of eligibility for listing on the NRHP and effect conduct a normal Sec. 106 review in accordance with the Section 106 and the PA.	Complete prior to construction for each phasebefore construction on Phase I or the maintenance facility	City	
HP06 Sec. 106 PA See Stipulation III for specific commitments	If the TCP study finds any unexpected TCP in an area potentially adversely affected by the Project, the City will, in accordance with the PA, prepare documentation of that TCP needed to nominate it to the National Register, and submit that documentation to SHPO. The City will complete all fieldwork, eligibility and effects determination and consultation to develop treatment measures related to TCPs prior to the start of construction.	Complete prior to construction ofreach phasebefore construction on Phase I or the maintenance facility	City	

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Mitigation ID and Reference	Mitigation Measure	Timing of Mitigation Measure	Responsible Party for Implementing Mitigation	Status of Implementation of this Project Element
HP07 Sec. 106 PA See Stipulation III for specific commitments	Following the procedures set forth in the PA, the City shall develop and carry out an Archaeological Inventory Survey (AIS) Plan for each construction phase of the Project. The AIS will be completed in advance of final design for each construction phase. For Construction Phase 4, the City will initiate consultation for the AIS plan within 60 days of execution of the PA and include a broader list of consulting parties, including the OIBC, in the AIS Plan development. The AIS Plan for construction Phase 4 shall be submitted to the SHPD within four months of execution of the PA. The AIS shall be completed prior to final design for construction phase 4. The City shall inform OIBC of the status of AIS and continue to meet regularly with the OIBC.	Complete prior to final design for each construction phase	City	
HP08 Sec. 106 PA See Sstipulations[] I in the PA for specific commitments	If any of the AISs find Native Hawaiian burials or archeologicalarchaeological resources, the City shall follow the terms in the PA.	Pre-construction pComplete prior to final design for each construction phase	City	
HP09 Sec. 106 PA See Stipulation III.B.4 for specific commitments	Following the procedures set forth in the PA, the City, in coordination with the OIBC, lineal and cultural descendents, Native Hawaiian Organizations, and other interested parties that are identified in discussion with OIBC shall develop a protocol for consultation regarding the treatment of any <i>iwi kupuna</i> identified during the AIS.	Draft protocol will be provided to OIBC for review within 6 months of the execution of the PA. Protocol shall be completed prior to initiation of AIS for Phase 4.	City	

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Mitigation ID and Reference	Mitigation Measure	Timing of Mitigation Measure	Responsible Party for Implementing Mitigation	Status of Implementation of this Project Element
HP10 Sec. 106 PA See Stipulation III.D for specific commitments	Following the procedures in the PA, the City shall develop and implement a specific treatment plan to avoid, minimize, or mitigate adverse effects on historic properties for each construction phase based on the results of AIS fieldwork and consultation with the SHPD.	Complete prior to final design for each construction phase	City	
HP11 Sec. 106 PA See Stipulation III.E for specific commitments	Following the procedures in the PA, subsequent to the archeological fieldwork_and development of the treatment plan, the City, in consultation with the SHPD, shall develop mitigation plans as appropriate. These plans may include an archeologicalarchaeological monitoring plan and monitoring reports, or a data recovery program.	Deadlines vary. See PA for time frame commitments.	City	
HP12 Sec. 106 PA See Stipulation III.F for specific commitments	Following the procedures in the PA, the City will curate any recovered materials in accordance with applicable laws such as HAR Chapter 13-278 and 36 C.F.R. 79.	Complete curation upon completion of archaeological fieldwork	City	
HP13 Sec. 106 PA See Stipulation IV for specific commitments	Following the procedures in the PA, the City shall develop standards for, and maintain and update the Project's <i>Design Language Pattern Book</i> for use in all Project elements. This pattern book shall be available electronically and shall comply with the <i>Secretary of Interior's Standards for the Treatment of Historic Properties</i> for stations within the boundary or adjacent to an eligible or listed historic property.	Prior to final design	City	

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Mitigation ID and Reference	Mitigation Measure	Timing of Mitigation Measure	Responsible Party for Implementing Mitigation	Status of Implementation of this Project Element
HP14 Sec. 106 PA See Stipulation IV for specific commitments	For each phase of the Project, the City shall conduct a minimum of two neighborhood workshops on the design of the stations in that phase.	Prior to final design	City	
HP15 Sec. 106 PA See Stipulation IV for specific commitments	Following the procedures set forth in the PA, the City shall provide the consulting parties with the preliminary engineering design plans for built component of the Project, provide an opportunity to comment on the design plans and consider comments on those plans. For stations within boundaries or directly adjacent to listed or eligible historic properties, the City shall also provide design plans during the final design phase to consulting parties and provide the opportunity for them to comments on design plans. The City shall consider comments on those plans.	Distribute preliminary engineering plans prior to final design. For stations within or adjacent to historic properties distribute prior to final designPrior to final design and final design	City	
HP16 Sec. 106 PA See Stipulation V.A for specific commitments	Following the procedures set forth in the PA, the City shall conduct historic context studies, in consultation with the consulting parties and the SHPD, related to historic themes in the Project area and distribute the resulting historic context reports as specified in the PA. The City shall distribute the historic context studies per the terms in the PA.	Within 90 days of the execution of the PA the City shall complete a draft study. Initial field work and photography shall be completed prior to construction commencement in that area.	City	
HP17 Sec. 106 PA See Stipulation V.B for specific commitments	Following the procedures set forth in the PA, the City shall conduct cultural landscape studies related to historic landscapes in the Project area, in consultation with the consulting parties and the SHPD, and distribute the resulting cultural landscape historic reports as specified in the PA.	Within 90 days of the execution of the PA the City shall complete a draft study. Initial field work and photography shall be completed prior to construction commencement in that area.	City	

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HP18 Sec. 106 PA See Stipulation V.C for specific commitments	Following the procedures set forth in the PA, the City shall document certain historic properties specified by the National Park Service and located in the Project area for incorporation into the Historic American Building Survey, the Historic American Engineering Record, or the Historic American Landscape Survey, whichever is appropriate.	The City shall ensure that final HHH documentation is completed for a property and accepted by NPS prior to commencement of activities that could impact the historic property and/or its integrity.	City	
HP19 Sec. 106 PA See Stipulation V.D for specific commitments	Following the procedures set forth in the PA, the City shall complete archival photography to NRHP standards for all resources that received adverse effect determinations that are not subject to HHH documentation under Stipulation V.C. The SHPD will review this documentation upon completion.	Complete prior to final designconstruction for each construction phasePre-construction	City	
HP20 Sec. 106 PA See Stipulation V.E for specific commitments	Following the procedures set forth in the PA, the City shall have digital photographs taken by a professional photographer, in conjunction with the input of a supervising architectural historian, to document select resources and view sheds within the APE. Approximately 150 views will be submitted. These photographs will be submitted to the SHPD and the City will use these materials for items such as interpretive materials and publications.	PComplete prior to final designconstruction for each construction phase re-construction	City	
HP21 Sec. 106 PA See Stipulation V.F for specific commitments	Following the procedures set forth in the PA, the City shall take a comprehensive video of the Project corridor prior to construction commencement.	Prior to constructione-construction for the entire corridor.	City	

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HP22 Sec. 106 PA See Stipulation VI.A for specific commitments	Following the procedures set forth in the PA, the City shall complete a NRHP Multiple Property Documentation (MPD) for Modern/Recent Past historic properties dating from 1939-1979 and the City shall complete a single Multiple Property Submission (MPS), including all appropriate accompanying documentation. The City shall consult with consulting parties, the SHPD and NPS in developing this documentation.	Submit final forms NRHP forms prior to beginning revenue service operations for the Project	City	
HP23 Sec. 106 PA See Stipulation VI.B for specific commitments	Following the procedures set forth in the PA, the City shall update the nominations of Pearl Harbor and CINCPAQ to be designated as National Historic Landmarks.	Submit final forms NRHP forms prior to beginning revenue service operations for the Project	City	
HP24 Sec. 106 PA See Stipulation VI.C for specific commitments	Following the procedures set forth in the PA, the City shall produce or update the nominations for the 31 historic properties adversely affected properties to the National Register. In addition, the City shall prepare nomination documentation for the Little Makalapa Housing District.	City shall complete nomination forms for Little Makalapa and Big Makalapa Housing Districts prior to the second Pearl Harbor design workshop. The nomination forms for the remainder of the properties shall be submitted to the NPS prior to revenue service operation for the Project.	City	

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HP25 Sec. 106 PA See Stipulation VI.F for specific commitments	Following the procedures set forth in the PA, the City shall produce a searchable database of historic properties, in consultation with the SHPD, and provide it to an interested historic preservation or educational organization.	City shall initiate database development prior to construction commencement and will update and maintain the database during the duration of the PA.	City	
HP26 Sec. 106 PA See Stipulation VII.A for specific commitments	Following the procedures set forth in the PA, the City shall complete an interpretive plan for the Project area and install the signage, and distribute the educational materials and programs. The City shall submit drafts to consulting parties for review and comment per Stipulation VII.H.	City shall complete prior to beginning revenue service operation of the Project.	City	
HP27 Sec. 106 PA See Stipulation VII.B for specific commitments	Following the procedures set forth in the PA, the City shall complete a color brochure describing the history of the area along the transit line, make 1,000 copies, and make available electronically. The City shall submit drafts to consulting parties for review and comment per Stipulation VII.H.	City shall complete prior to beginning revenue service operation of the Project.	City	
HP28 Sec. 106 PA See Stipulation VII.C for specific commitments	Following the procedures set forth in the PA, the City shall prepare materials for children that would educate them about relevant local history. The City shall submit drafts to consulting parties for review and comment per Stipulation VII.H.	City shall complete prior to beginning revenue service operation of the Project.	City	

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HP29 Sec. 106 PA See Stipulation VII.D for specific commitments	Following the procedures set forth in the PA, the City shall establish a Humanities Program that will explore human histories, cultures, and values. The City shall develop this program's goals in consultation with consulting parties and the City will provide \$100,000 to fund this program.	City shall complete prior to beginning revenue service operation of the Project or when all designated funds are exhausted, whichever occurs later.	City	
HP30 Sec. 106 PA See Stipulation VII.E for specific commitments	Following the procedures set forth in the PA, the City shall develop and implement an educational program and an effort designed to encourage the rehabilitation of historic properties in the Project area. The City shall submit drafts to consulting parties for review and comment per Stipulation VII.H.	City shall complete prior to beginning revenue service operation of the Project.	City	
HP31 Sec. 106 PA See Stipulation VII.F for specific commitments	Following the procedures set forth in the PA, the City will develop an educational field guide to historic properties and districts along the transit route. The City shall submit drafts to consulting parties for review and comment per Stipulation VII.H.	City shall complete prior to beginning revenue service operation of the Project.	City	
HP32 Sec. 106 PA See Stipulation VII.G	Following the procedures set forth in the PA, the City shall invite consulting parties to a kick-off meeting to develop a work plan for all materials described in Stipulation VII.	City shall complete prior to beginning revenue service operation of the Project.	City	
HP33 Sec. 106 PA See Stipulation VIII.A	Following the procedures set forth in the PA, the City shall mark, store securely, and replace all lava rock curbstones.	Construction	City	

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HP34 Sec. 106 PA See Stipulation VIII.B	Following the procedures set forth in the PA, the City shall maintain or replace the guard rails on the Kapalama Canal Bridge to match the historic appearance. The City shall consider the Secretary of the Interior's Standards for the Treatment of Historic Properties in developing draft plans to provide to SHPD for review per Stipulation IV.	Prior to final design and during construction	City	
HP35 Sec. 106 PA See Stipulation VIII.C.	Following the procedures set forth in the PA, the City shall replace each true kamani trees on its original location or as close to it as possible.	Construction	City	
HP36 Sec. 106 PA See Stipulation VIII.D.	Following the procedures set forth in the PA, the City shall plan and implement improvements to historic parks adversely affected by the Project. Project funds in the sum of \$750,000 shall be budgeted for implementation of the parks improvement plan. City shall invite consulting parties to a kickoff meeting to discuss the parks plan.	City shall complete prior to beginning revenue service operation of the Project.	City	
HP37 Sec. 106 PA See Stipulation IX.A	Following the procedures set forth in the PA, the City shall create and staff a position for a qualified architectural historian whose primary responsibility will be to fulfill the PA.	Pre-Final DesignWithin 6 months of execution of the PA	City	
HP38 Sec. 106 PA See Stipulation IX.B	Following the procedures set forth in the PA, the City shall establish a Historic Preservation Committee for the Project, specify its purpose and functions, and initiate its first meeting.	Initiate pre-construction and operate continuously until PA expires Within 3 months of execution of the PA	City	
HP39 Sec. 106 PA See Stipulation IX.C	Following the procedures set forth in the PA, the City shall report to the consulting parties on all applications for building demolition and on all City-generated construction projects within certain specified areas of the Project, and shall perform an analysis of the frequency of these activities from the recent past up to the present.	Continuously until PA expires	City	

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H40 HP40 Sec. 106 PA See Stipulation IX	The City shall follow Stipulation IX.E for handling unanticipated cumulative adverse effects in the Chinatown and Merchant Street Historic Districts.	Continuously until the PA expires.	City	
H41 HP41 Sec. 106 PA See Stipulation X	The Construction Mitigation Plan for the Project developed by the City shall include provisions for protecting historic properties from construction noise and vibration impacts, and shall be implemented by the City through the construction contracts, according to the procedures set forth in the PA.	Pre-construction Prior to construction of each phase	City	
H42 HP42 Sec. 106 PA See Stipulation X.C	Following the procedures set forth in the PA, the City will monitor Project construction to ensure measures in the CMP are implemented and shall provide a record of monitoring activities in progress reports pursuant to Stipulation XIV.E.	Construction	City	
H43 HP43 Sec. 106 PA See Stipulation X.D	Following the procedures set forth in the PA, the City shall monitor transit noise at the Pearl Harbor National Historic Landmark.	Within 1 year of the start of revenue operation	City	
H44 HP44 Sec. 106 PA See Stipulation XI	Following the procedures set forth in the PA, the City shall develop and conduct a training program for construction contractors and employees regarding appropriate sensitivity to historic resources.	Prior to construction of each phase Pre-construction	City	

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Mitigation ID and Reference	Mitigation Measure	Timing of Mitigation Measure	Responsible Party for Implementing Mitigation	Status of Implementation of this Project Element
H45 HP45 Sec. 106 PA See Stipulation XI	Following the procedures set forth in the PA, the City shall write semi- annual progress reports detailing progress in implementing the PA and shall post those report on the Project website.	Semi-annually	City	
H46 HP46 Sec. 106 PA See Stipulation XIII	Following the procedures set forth in the PA, the City shall keep the public informed through semi annual progress reports and will post them on the Project website.	Continuously until the PA expires.	City	
H47 HP47 Sec. 106 PA See Stipulation XIV.E	Following the procedures set forth in the PA, the City shall provide all signatories to this PA a summary report detailing the work undertaken pursuant to its terms.	Continuously until the PA expires.	City	
HP48 Sect. 106 PA S				

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